

## I CLAIM:

1                   1. An apparatus for sorting small objects, the  
2    apparatus comprising  
3                   a trough having a longitudinally extending groove along  
4    which the objects can slide, the groove having a floor formed  
5    with a throughgoing slot of a width substantially smaller than a  
6    predetermined minimum object width, whereby if any of the objects  
7    is of a width smaller than the minimum object width it will fall  
8    through the slot as it slides along the floor.

1                   2. The sorting apparatus defined in claim 1 wherein  
2    the slot is centrally formed in the groove.

1                   3. The sorting apparatus defined in claim 2 wherein  
2    the slot is elongated longitudinally of the groove.

1                   4. The sorting apparatus defined in claim 3 wherein  
2    the floor is V-shaped.

1           5. The sorting apparatus defined in claim 3 wh r in  
2 the groove has a formation that engages and rotates the objects  
3 about vertical axes as the objects slide past the slot.

1           6. The sorting apparatus defined in claim 3 wherein  
2 the groove is of generally rectangular section and has a pair of  
3 generally parallel, horizontally spaced, and vertical side walls  
4 and an upwardly directed floor bridging lower edges of the side  
5 walls and formed with the slot.

1           7. The sorting apparatus defined in claim 6 wherein  
2 the slot is offset inward from both of the side walls.

1           8. The sorting apparatus defined in claim 7, further  
2 comprising  
3 a formation on one of the side walls engageable with  
4 the objects to rotate same about vertical axes as the objects  
5 slide past the slot.

1           9. The sorting apparatus defined in claim 3 wherein  
2 the trough is inclined to the horizontal.

1                   10. The sorting apparatus defined in claim 3 wherein  
2     the groove is upwardly open.

1                   11. The sorting apparatus defined in claim 3, further  
2     comprising  
3                   means for vibrating the trough.

1                   12. An apparatus for sorting small cylindrical  
2     objects, the apparatus comprising  
3                   a trough having a longitudinally extending groove along  
4     which the objects can slide, the groove being of generally  
5     rectangular upwardly open shape and having a pair of upright and  
6     horizontally spaced side walls and an upwardly directed floor  
7     bridging lower edges of the side walls, the floor being formed  
8     offset from the side walls with a vertically throughgoing slot of  
9     a width substantially smaller than a predetermined minimum object  
10    width, whereby if any of the objects is of a diameter smaller  
11    than the minimum object width it will fall through the slot as it  
12    slides along the floor, one of the side walls being formed at the  
13    slot with an inwardly directed braking formation engageable with  
14    the objects as they slide past the slot to rotate same about  
15    vertical axes.